

REMARKS

Claims 1-5, 7-8, and 10-12 were pending as of the Office Action of December 11, 2008. Applicant respectfully amends claim 1, the Specification, and the Drawings. Claims 2-5, 7-8, and 10-12 are herein cancelled. Claims 13-16 are added. Applicant will now respectfully address the Examiner's rejections.

Rejections under 35 U.S.C. 102(b)

Claims 1-4, 8, and 10-11 are rejected under 35 U.S.C. 102(b) as being anticipated by United States Patent No. 6,629,922 to Puria ("Puria" hereinafter). Applicant respectfully traverses, noting that claims 2-4, 8, and 10-11 are respectfully cancelled.

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. V. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987)."

Applicant's amended claim 1 recites *inter alia*

"an implantable electromechanic transducer, which converts the force resulting of an accelerated mass into an electric signal;

at least one of an impedance and A/D converter configured for processing the electric signal;

a signal processing unit

feedlines configured to a connect the implantable electromechanic transducer to the signal processing unit."

None of Figures 1A, 2E, 2F, 4C, or 4D (or any of the rest of Puria) teach conversion of force into electric signal, and therefore certainly do not teach an impedance or A/D converter configured for processing the electric signal, or any sort of signal processing unit connected to the implantable electromechanic transducer. On the contrary,

referring to the Abstract and Figures 4C and 4D, Puria teaches an actuator for “*directly driving*” inner ear fluid or middle ear bones. Thus, as stated at column 5 lines 7-8, Puria does NOT teach conversion of force into electric signal as required by Applicant’s claims, but instead teaches conversion of electric signal into force (i.e. changes in thickness of the substrates/movement of the end caps 104 and 106).

Furthermore, the ossicular chain of Puria is not permanently interrupted (please see Figures 4C-4D), as is required by Applicant’s claim.

For at least the above reason, Applicant respectfully asserts that Puria does not teach every element of Applicant’s claim. Accordingly, Applicant’s claim 1 is not anticipated by Puria.

Rejections under 35 U.S.C. 102(b)/103(a)

Claims 1-4, 8, and 10-11 are rejected under 35 U.S.C. 102(b) as being anticipated by United States Patent No. 5,624,376 to Ball (“Ball” hereinafter) or being obvious over Ball in view of United States Patent No. 6,540,662 to Kroll (“Kroll” hereinafter) or United States Patent No. 6,585,637 to Brillhart (“Brillhart” hereinafter). Applicant respectfully traverses, noting that claims 2-4, 8, and 10-11 are respectfully cancelled.

“A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros. V. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

Furthermore, for an obviousness rejection to be proper, the Examiner must meet the burden of establishing that all elements of the invention are disclosed in the prior art and that the prior art relied upon, coupled with knowledge generally available in the art at the time of the invention, must contain some suggestion or incentive that would have motivated the skilled artisan to modify a reference or combined references. *In re Fine*, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988); *In Re Wilson*, 165 U.S.P.Q. 494, 496 (C.C.P.A.

1970); *Amgen v. Chugai Pharmaceuticals Co.*, 927 U.S.P.Q.2d, 1016, 1023 (Fed. Cir. 1996).

Applicant's amended claim 1 recites *inter alia*,

"an implantable electromechanic transducer, which converts the force resulting of an accelerated mass into an electric signal;

at least one of an impedance and A/D converter configured for processing the electric signal;

a signal processing unit

feedlines configured to a connect the implantable electromechanic transducer to the signal processing unit... the ossicular chain is permanently interrupted"

Ball does not disclose an implantable transducer that converts the force of an accelerated mass into an electric signal. On the contrary, and similar to Puria, Ball teaches an implantable transducer that converts an electric signal into a force or vibration (i.e. a movement of an accelerated mass). In fact, referring to Figs. 3-5 of Ball, there a floating mass of transducers is shown (see also col.3, lines 54-62), which oscillate when alternating current is conducted to the coil (col. 8, section A Floating Mass Magnet). Furthermore, Ball teaches that transducer 100 "may be connected to any vibratory structures of the ear" (col. 10, lines 31, 32) and "the vibration of the housing which are generated during operation are conducted along the bones of the middle ear to the oval window EE of the inner ear" (col. 10, 23-26). Applicant respectfully asserts that this teaching clearly evidences conversion of electrical signal into force, as opposed to conversion of forces resulting of an accelerated mass into an electric signal as is required by Applicant's claims.

In addition, lines 9-11 of the ABSTRACT describes "an alternating electrical current through the coil results in vibration of the magnet assembly and the coil relative to one another" without any mention any receiving function of the floating mass transducer. Therefore, Applicant respectfully contends that Ball does not teach a "sound receiver providing a mounting mechanism," but instead teaches a sound transmitter providing a

mounting mechanism. Ball discloses neither a sound receiver nor a transducer that "converts the force ... into an electric signal." Simply and respectfully put, the device of Fig. 9 would cease to function as a hearing aid if the transducer 100 of fig. 9 were modified or used as suggested by the Examiner. As such, any proposed modification in this manner would be improper under MPEP 2143.01 V.

As Ball fails to teach the above, Ball also fails to teach impedance and/or A/D converter, a signal processing unit, and the processing of the electric signal, as are also required by Applicant's claims. Since neither Kroll nor Brillhart remedy any of these deficiencies, for at least the above reasons, the proposed combination of Ball, Kroll, and Brillhart does not teach every element of Applicant's claim. Applicant again notes that any "permanent interruption" in the ossicular chain in Ball would render Ball inoperable for its intended purpose of allowing a user to hear (please see col. 6, lines 7-9 of Ball). Hearing via the vibration taught here requires an uninterrupted ossicular chain. Accordingly, if one were to modify Ball by disconnecting the incus from the stapes, which would be the result of the Examiner's proposed combination of Ball with either Kroll or Brillhart sound/vibration from the floating mass magnet 100 of Ball to the oval windows EE would be interrupted and the hearing ability of the patient would not be improved but completely disabled.

Furthermore, with respect to the Examiner's comments at the first full paragraph of page 3 of the Office Action, Applicant respectfully points out that the phrase, "or any replacement thereof," has been removed from Applicant's claims. As such, the ossicular chain of Ball is not permanently interrupted, as is required by Applicant's claim. This is because removal of the stapes followed by replacement with a prosthesis precludes a permanent *interruption in the chain as a whole* (a chain cannot be interpreted as "permanently interrupted" if it is re-linked as taught in Ball).

As the proposed combination of Ball, Kroll, and Brillhart does not teach every element of claim 1, clearly, one of ordinary skill at the time of Applicant's invention would not have a motivation to modify or combine Ball, Kroll, and Brillhart, or a reasonable

likelihood of success in forming the claimed invention by modifying or combining Ball, Kroll, and Brillhart. For at least these reasons, Applicant respectfully submits that *prima facie* obviousness does not exist with regards to claim 1.

Rejections under 35 U.S.C. 103(a)

Claims 5, 7, and 12 are further rejected over combinations with United States Publication No. 2002/0138115 to Baumann (“Baumann” hereinafter), United States Patent No. 5,531,787 to Lesinski et al. (“Lesinski” hereinafter), and United States Patent No. 6,398,717 to Leysieffer et al. (“Leysieffer” hereinafter). In response, Applicant respectfully points out that claims 5, 7, and 12 are respectfully cancelled.

However, none of Baumann, Lesinski, and Leysieffer remedy the deficiencies of Ball and Puria, at least as these deficiencies pertain to the failure of Ball and Puria (and any of the above combinations involving Ball) to teach an implantable transducer that converts the force of an accelerated mass into an electric signal.

Conclusion

The rejections herein overcome. Entry of the present Response with Amendment and prompt issuance of a Notice of Allowance are respectfully requested.

Applicant hereby petitions for any necessary extension of time required for consideration of this Response.

Please charge any fees due with respect to this Response, or otherwise regarding the application, to Deposit Account 06-1130 maintained by Applicant's attorneys.

The Office is invited to contact Applicants' attorneys at the below-listed telephone number regarding this Response or otherwise concerning the present application.

Respectfully submitted,

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